## IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

a/s/o Shirley Bastianini,	
Plaintiff,	)
vs.	) 2:06cv1186 Electronic Filing
HAMILTON BEACH/PROCTOR-SILEX, INC.	) )
Defendant.	)

## **OPINION**

Plaintiff commenced this product liability action seeking damages it sustained from paying an insurance claim arising from a residential fire. The fire allegedly started in a toaster manufactured by defendant. Plaintiff seeks to establish that a defect in the toaster caused the fire. Presently before the court is defendant's motion for summary judgment, which is predicated on the court excluding the testimony of plaintiff's key expert witness on liability and the likely cause of the fire. For the reasons set forth below, the motion will be denied.

Federal Rule of Civil Procedure 56 (c) provides that summary judgment may be granted if, drawing all inferences in favor of the non-moving party, "the pleadings, depositions, answers to interrogatories and admissions on file, together with the affidavits, if any, show that there is no genuine issue of material fact and the movant is entitled to judgment as a matter of law." Summary judgment may be granted against a party who fails to adduce facts sufficient to establish the existence of any element essential to that party's claim, and upon which that party will bear the burden of proof at trial. Celotex Corp. v. Catrett, 477 U.S. 317 (1986). The moving party bears the initial burden of identifying evidence which demonstrates the absence of a genuine issue of material fact. When the movant does not bear the burden of proof on the claim, the movant's initial burden may be

met by demonstrating the lack of record evidence to support the opponent's claim. National State Bank v. National Reserve Bank, 979 F.2d 1579, 1582 (3d Cir. 1992). Once that burden has been met, the non-moving party must set forth "specific facts showing that there is a genuine issue for trial," or the factual record will be taken as presented by the moving party and judgment will be entered as a matter of law. Matsushita Electric Industrial Corp. v. Zenith Radio Corp., 475 U.S. 574 (1986) (quoting Fed.R.Civ.P. 56 (a), (e)) (emphasis in Matsushita). An issue is genuine only if the evidence is such that a reasonable jury could return a verdict for the non-moving party. Anderson v. Liberty Lobby, Inc., 477 U.S. 242 (1986).

In meeting its burden of proof, the "opponent must do more than simply show that there is some metaphysical doubt as to the material facts." Matsushita, 475 U.S. at 586. The non-moving party "must present affirmative evidence in order to defeat a properly supported motion" and cannot "simply reassert factually unsupported allegations." Williams v.

Borough of West Chester, 891 F.2d 458, 460 (3d Cir. 1989). Nor can the opponent "merely rely upon conclusory allegations in [its] pleadings or in memoranda and briefs." Harter v.

GAF Corp., 967 F.2d 846 (3d Cir. 1992). Likewise, mere conjecture or speculation by the party resisting summary judgment will not provide a basis upon which to deny the motion.

Robertson v. Allied Signal, Inc., 914 F.2d 360, 382-83 n.12 (3d Cir. 1990). If the non-moving party's evidence merely is colorable or lacks sufficient probative force summary judgment must be granted. Anderson, 477 U.S. at 249-50; see also Big Apple BMW, Inc. v.

BMW of North America, 974 F.2d 1358, 1362 (3d Cir. 1992), cert. denied, 113 S.Ct. 1262 (1993) (although the court is not permitted to weigh facts or competing inferences, it is no longer required to "turn a blind eye" to the weight of the evidence).

The record as read in the light most favorable to plaintiff establishes the background set forth below. On September 11, 2004, at 11:20 p.m., Shirley Bastianini decided to toast two strawberry Kellogg's Pop-Tarts in a toaster manufactured by defendant. The toaster was situated on the kitchen counter of her residence. She routinely had used the toaster to cook Pop-Tarts and other toaster pastries for a number of years without experiencing an abnormal operation or mechanical problem. During the toasting cycle Ms. Bastianini heard her 18-

month old granddaughter begin to cry, and she left the kitchen to tend to the child. She returned to the kitchen several minutes later with her granddaughter in her arms. When she focused on the toaster, she saw flames coming out of the bread slots, hitting the bottom of the cabinets directly above, and curling around the edges of the cabinet. She believed that pulling the plug would not have helped, so she exited the house with her granddaughter and called 911.

It is undisputed that the toaster was a Hamilton Beach/Proctor-Silex ("HBPS") T19 Model 24415 ("the subject toaster"). This particular toaster style and model number has not been produced by HBPS for at least four years.

Plaintiff investigated the fire pursuant to a claim under the Bastianini's homeowner's policy and ultimately determined that it resulted in property damage valued at \$168,161.76. Plaintiff paid the claim and commenced this products liability action pursuant to its subrogation rights.

Plaintiff hired an electrical engineering consultant, Michael Wald ("Wald") of IEI Consulting, to assist in determining the cause of the fire. IEI Consulting had conducted investigations in at least six other fires that were determined to be caused by HBPS toasters, and more specifically, the failure of the toasters' end-of-cycle mechanism to trigger the carriage release. Of these, at least three had occurred in toasters in which the end-of-cycle components were identical to those in the subject toaster. Wald attempted to acquire a T19 Model 24415 for testing, but was unable to obtain one from defendant, the internet, retail outlets and other potential sources.

After reviewing the pertinent depositions, incident reports and discovery responses, and examining the actual subject toaster, Wald determined that the cause of the fire was the failure of the toaster's end-of-cycle mechanism to actuate the carriage release. Wald described the mechanical operation of the toaster as follows:

This design uses a bi-metal strip mounted vertically inside of the toasting chamber which bends as it becomes heated during the toasting cycle. The movement of the strip pushed on a small rod [push rod] located in the bottom of the chamber which travels [laterally] through a small cutout in the front plate of the toaster (bulkhead) where it pushes the moveable contact of a momentary contact switch. When the switch is pushed closed, energy is delivered to a solenoid which activates the carriage release. It is the bending

of the strip, the movement of the rod, and the closing of the switch which constitutes the end of cycle mechanism.

Wald Expert Report (Doc. No. 38-3) at 2. Defendant does not dispute this description.

Wald posited that the design defect inherent in the T19 is its susceptibility to the accumulation of frosting or other sticky debris on the push rod which, in turn, can and did hinder its lateral movement through the bulkhead. When the push rod fails to trigger the contact switch, the heating elements continue to emit heat indefinitely. After several minutes the contents in the toaster erupt into flame. Wald based this assessment in part on testing he conducted on a HBPS T17 Model 22415 toaster in the case of *Seeley v. Hamilton Beach/Proctor-Silex*, 349 F.Supp.2d 381 (N.D.N.Y. 2004).

In *Seeley*, Wald conducted two rounds of testing on a T17 22415 Model toaster in order to determine whether a presumed defect had caused a Pop Tart to combust and set fire to the Seeley home. In the initial phase of testing, Wald toasted Pop Tarts at various settings, mostly medium to high. After 12 to 20 cycles, he observed the buildup of icing throughout the inner workings of the toaster chamber, including an area close to where the push rod passes through the bulkhead. Based on this observation he developed the hypothesis that debris such as frosting on the push rod could impede the movement of the rod through the bulkead and delay the end-of-cycle mechanism long enough to ignite a Pop-Tart.

In the second phase of testing, he placed frosting on the push rod at the area where it passes through the bulkhead and activated the toaster at a medium setting. The end-of-cycle mechanism was delayed and a fire resulted within 12 minutes. Both the initial stage - showing signs of frosting accumulation - and the second stage - demonstrating delay and combustion - were documented on videotape.

In conducting the testing in *Seeley*, Wald indicates that he followed the "scientific method," as detailed and endorsed by chapter 2 of the National Fire Protection Association's NFPA 921, Guidelines for Fire and Explosion Investigations. Affidavit of Michael Wald, (Doc. No. 47-11) at ¶¶ 21-23. The scientific method prescribes the following procedure for forensic fire investigation: "Recognize the Need, Define the Problem, Collect Data, Analyze the Data, Develop a Hypothesis, Test the Hypothesis, and Select Final Hypothesis." *Id*.

Wald is prepared to opine that the posited design defect he believes caused the *Seeley* fire existed in the T19 Model and caused the Bastianini fire. He will further posit that alternative designs for end-of-cycle activation were in widespread use at the time the T19 was manufactured, could have been easily employed by HBPS and would have prevented the fire from occurring. These include placing the push rod at the top of the toaster chamber, using a shield to protect the push rod from buildup, employing solid state circuitry and/or relocating the contact switch, thereby eliminating the need for a push rod altogether.

Defendant contends that Wald's testimony should be excluded for a variety of reasons. Chief among these are that he did not employ a reliable methodology and that there were disqualifying differences between the toaster Wald tested and the subject toaster, thereby destroying the fit between the conclusions drawn from his prior testing and the factual issues in this case. And without Wald's testimony, defendant is entitled to summary judgment. Plaintiff contends that Wald's testimony clearly is admissible and defendant's wholesale attack on it is at the very least fraught with inaccuracies and misleading statements.

## The *Daubert* Inquiry

In the seminal case of *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993), the Supreme Court assigned to the trial court the "gatekeeper" function of precluding expert testimony that is unreliable, irrelevant or unhelpful to the jury. *Daubert*, 509 U.S. at 597. In order to receive expert testimony, the expert must be qualified, the testimony must be based on reliable and scientifically valid methodology – *i.e.*, based on "good grounds" – and it must assist the trier of fact to understand the evidence or resolve factual issues – *i.e.*, it is relevant or "fits." *Daubert*, 509 U.S. at 589-91. Although this gatekeeping function was initially limited to scientific expert testimony, it subsequently was extended to all expert testimony in *Khumo Tire Co. v. Carmichael*, 526 U.S. 137 (1999).

The "Daubert inquiry" is a flexible one. The Supreme Court identified five non-exclusive factors to assist the trial court in its evaluation: "1) can the theory or technique in question be tested; 2) has the theory or technique been subject to peer review and publication; 3) what is the known or potential rate of error for a particular technique; 4) are there standards that exist and are maintained that control the technique's operation; and 5) has the

theory or technique been 'generally accepted." *Wicker v. Consolidated Rail Corp.*, 371 F. Supp.2d 702 (W.D. Pa. 2005) (quoting *Daubert*, 509 U.S. at 593-94). In *In re Paoli R.R. Yard PCB Litigation*, 35 F.3d 717 (3<sup>rd</sup> Cir. 1994) (*Paoli III*), the Third Circuit articulated three additional factors for consideration: "the degree to which the expert testifying is qualified, the relationship of a technique to 'more established modes of scientific analysis,' and the 'non-judicial uses to which the scientific technique are put." *Paoli III*, at 742 (quoting *U.S. v. Downing*, 753 F.2d 1224, 1238-39 (3d Cir. 1985)). The reliability of an expert's principles and methodology serve as the focus, not the expert's conclusions. *Wicker*, 371 F. Supp.2d at 708.

The *Daubert* factors do not constitute a definitive checklist. *Khumo*, 526 at 150. Their application turns on the factual matrix before the court. *Id.* "It might not be surprising in a particular case, for example, that a claim made by a scientific witness has never been the subject of peer review, for the particular application at issue may never previously have interested any scientist." *Khumo*, 526 at 151. In other words, "[w]hether *Daubert's* specific factors are, or are not, reasonable measures of reliability in a particular case is a matter that the law grants the trial judge broad latitude to determine." *Khumo*, 526 at 153.

The *Daubert* Court recognized that jurors will have the capacity to distinguish "junk science" from the real thing. Accordingly, where an expert is expected to deliver "shaky" testimony, admission of the testimony may still be proper because "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking" such evidence. *Daubert*, 509 U.S. at 596.

In *Paoli III*, the court elaborated on *Daubert's* notion of reliability. "The evidentiary requirement of reliability is lower than the merits standard of correctness." *Paoli III*, 35 F.3d at 744. Further, "a court may determine that 'good grounds' exist for the expert opinion to be offered, even though the judge may believe 'better grounds' exist for an alternate conclusion or that a somewhat flawed methodology, if fixed, would lead to a different conclusion." *Wicker*, 371 F. Supp.2d at 711 (citing *Paoli III* at 744); *accord Heller v. Shaw Industries*, *Inc.*, 167 F.3d 146, 152-53 (3d Cir. 1999).

The "fit" element has been described as encompassing "the proffered connection between the scientific research or test result to be presented and particular disputed factual issues in the case." *Downing*, 753 F.2d at 1237. In other words, the scientific or other specialized knowledge must be logically connected to the questions at issue and must assist the trier of fact to understand the evidence or determine an issue of fact. *Paoli III*, 35 F.3d at 742-43. In contrast, expert testimony based on assumptions that lack any factual support in the record properly are excluded. *Stecyk v. Bell Helicopter Textron, Inc.*, 295 F.3d 408, 414 (3<sup>rd</sup> Cir. 2002).

While the standard for fitness is higher than bare relevance, it is not that high. *Paoli III*, 35 F.3d at 745. Thus, in *In re Paoli R.R. Yard PCB Litigation*, 916 F.2d 829 (3<sup>rd</sup> Cir. 1990) (*Paoli I*), "testimony that PCBs [polychlorinated biphenyls] cause liver cancer was admissible even though no plaintiff suffered from such cancer because an affidavit supported the notion that 'increased risk of liver cancer was probative of increased risk of other forms of cancer." *Wicker*, 371 F. Supp.2d at 711 (quoting *Paoli I*). In other words, "[a] judge frequently should find an expert's methodology helpful, and the fit requirement satisfied, even when the judge thinks that the expert's technique has flaws sufficient to render the conclusions inaccurate." *Paoli III* at 744-45.

Turning to the instant matter, there can be little doubt that Wald is qualified to render opinions regarding the operation of the components of the toaster and the cause of the fire. Indeed, defendant does not contest his qualifications.

On balance, the reliability factors favor admission of Wald's expert testimony. First, in *Seeley* Wald conducted testing and developed a hypothesis: namely, that frosting on the push rod could impede its movement and cause a fire. He developed this hypothesis after testing for and observing the accumulation of frosting "in the area" where the push rod passes through the bulkhead. Affidavit of Michael Wald at ¶ 10. Thus, his theory was not the product of unsupported speculation.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>This stands in marked contrast to the cases cited by defendant such as *Oddi v. Ford Motor Co.*, 234 F.3d 136 (3<sup>rd</sup> Cir. 2000), where the experts relied almost solely on their training and years of experience to support their opinions.

Second, although Wald's particular technique had not been subject to peer review, it is based on a methodology that is sufficiently reliable for the purposes of admissibility. A strict application of each and every *Daubert* factor is not necessary. As discussed above, the reliability of an expert's methods are to be judged according to the particular circumstances of each case. No single factor is always pertinent. The general methodological framework under which Wald performed his tests, the "scientific method" reflected in NFPA 921, *has been* peer reviewed and widely accepted in forensic fire investigation. Affidavit of Wald at ¶ 21. This is more than necessary to clear the bar for admissibility.<sup>2</sup>

Third, Wald's particular technique sufficiently complied with the standards of control requirement. Wald's approach was to cook Pop Tarts in the T17 Model 22415 toaster in successive trial runs, mostly at a heightened heat setting and then, based upon the buildup of icing residue - *i.e.*, his "good grounds" - he developed and tested a theory that frosting was capable of impeding the lateral movement of the push rod to the point where the delay in the end-of-cycle mechanism would result in food combustion. The step-by-step procedure of the method outlined in NFPA 921 provided the appropriate "standards controlling the technique's operation." And as plaintiff alleges and Wald affirms in his affidavit, the method is "[t]he pre-eminent and most widely accepted" methodology used in forensic fire investigation. Affidavit of Wald at ¶ 21; *See also Booth v. Black & Decker, Inc.*, 166 F. Supp.2d 215, 220 (E.D. Pa. 2001) (noting that the methodology provided by NFPA 921 is accepted as reliable given its "comprehensive and detailed treatment of fire investigations."). Defendant fails to counter this assertion.

The three additional factors highlight by the Third Circuit also favor receipt of Wald's testimony. First, Wald is highly qualified. Wald possesses a bachelor of science degree in electrical engineering from Cornell University and earned a masters of science degree at George Washington University. *See* Wald *Seeley* Deposition, (Doc. No. 47-8) at 9-10. He is a current member of the National Fire Protection Association and has been a member of the

<sup>&</sup>lt;sup>2</sup> Plaintiff's failure to cite a potential rate of error does not render Wald's testing unreliable for the same reasons.

Institute for Electrical and Electronics Engineers. *Id.* at 10. He has been "investigating the causes of fires, explosions, and personal injury accidents" involving electrical equipment since 1990. *Id.* at 12. Second, the technique employed by Wald was not only related to, but was specifically prescribed by an "established mode of scientific analysis." Third, it is clear that NFPA 921 has a wide-based and independent application in the field of forensic fire investigation and was not concocted for the purpose of this suit.

Although the expert testimony proffered by plaintiff does not meet every *Daubert* factor, it cannot be said that Wald does not have "good grounds" for his expert opinion. As articulated in *Seeley*, "Wald performed a variety of tests that are appropriate . . . and his opinions 'are supported by rational explanations which reasonable men might accept, and none of his methods strike the court as novel or extreme." *Seeley*, 349 F. Supp.2d at 386. These assessments are equally applicable in the instance matter.

Wald's methods and conclusions also have an appropriate fit to the disputed issue. Generally speaking, plaintiff claims that defendant's T19 toaster was defectively designed and, as a result, caused a residential fire. Defendant denies this. Clearly, Wald's opinion that an unguarded push rod can be and was compromised by a buildup of melted frosting, causing a delay in the end-of-cycle mechanism allowing food products to ignite, is directly on point. Should a jury accept Wald's theory, it would have reasonable grounds to find both a design defect and causation.

That Wald relies upon the testing of another HBPS toaster from another case is of no moment given the circumstances. It is beyond preadventure that testing on a product that is substantially similar in all material aspects is an accepted approach that produces relevant results. *See e.g. Booth*, 166 F. Supp.2d at 219 (observing that the expert "never attempted to [test his cause and effect hypothesis] with a *similar* or identical [product], something that he conceded could have been done.") (emphasis added).

The T17 Wald experimented on in *Seeley* is substantially similar to the T19 in all material aspects. Although the T19 is equipped with an automatic shut-off system and differs slightly in its wattage and air flow, defendant fails to explain how these distinctions impact the end-of-cycle mechanism. Indeed, a review of defendant's expert testimony suggests that

operation of the automatic shut off depends upon the successful and uninhibited operation of the push rod. *See* Datovech Expert Deposition, (Doc. No. 47-10) at 132-133. Because the particular components asserted to be defective are identical, Wald's opinions, though based on the testing of a T17 toaster, will nevertheless assist the jury in determining the material facts in dispute.

Similarly, defendant's substantial reliance on *Oddi v. Ford Motor Co.*, 234 F.3d 136 (3<sup>rd</sup> Cir. 2000) is misplaced. Defendant cites *Oddi* for the proposition that Wald should have tested his proposed alternative designs. The plaintiff in *Oddi*, however, pursued his products liability action under a theory of "crashworthiness," which is a distinct subset of products liability jurisprudence. *Oddi*, 234 F.3d at 142-43. In order to establish a valid crashworthiness claim, a plaintiff must demonstrate that a safe and practical alternative design existed. *Oddi*, 234 F.3d at 143. Thus, in *Oddi*, the expert's testimony was barred due to his failure to test, and therefore know, whether his suggested alternatives would have cured the alleged defect. *Oddi*, 234 F.3d at 158.

The instant matter is not founded on a theory of crashworthiness. Furthermore, as Judge Lancaster recognized in *Ahner v. Black Bros. Co.*, Inc., — F. Supp.2d —, 2008 WL 2880382 (W.D. Pa. May 11, 2008), admissibility in a products design case ordinarily is not precluded by an expert's failure "either to offer proposed alternatives or to test the effectiveness of those alternatives." *Id.* at 2 (citing *Pineda v. Ford Motor Co.*, 520 F.3d 237 (3<sup>rd</sup> Cir. 2008) (engineer with a firm grasp of the force and stress required to dislocate glass need not have tested alternative warnings in order to deliver opinion that service manual provided unreliable instructions)).

Moreover, Wald has stated that a protective shield covering the push rod would cure the alleged defect. Plaintiff has provided a visual illustration of this straightforward measure. *See* Doc. No. 47-14. He also opines that relocating the contact switch to an area immediately near or adjacent to the bimetal strip would eliminate the need for a push rod altogether, an approach that was utilized by HBPS's competitors at the time the T19 was manufactured. Solid state circuitry, also existing in other toasters, likewise would have obviated the need for the bimetal system. Given Wald's qualifications, the testing he employed, the observations

he made, and his familiarity with alternative measures that were either in use or could have been easily employed, his testimony in support of these proposed alternatives cannot be said to be unreliable or lacking in evidentiary support. Consequently, *Oddi* does not bar his testimony regarding alternative designs.

Defendant's attempt to derail Wald's testimony by accusing him of departing from the scientific method by "artificially" placing frosting on the push rod at the area where it passes through the bulkhead, even though he did not observe frosting accumulation at this precise area during his initial trial runs, also is unavailing. *See* Defendant's Reply Brief at 5-7. Wald observed the buildup of icing close to where the push rod passes through the bulkhead after a mere 12 to 20 toasting cycles. He thus had good reason to theorize that after weeks, months or years of use, frosting and other debris would accumulate at that location.

That Wald accelerated the ultimate incremental effects from his prior testing is not a basis for exclusion. Even assuming that one can perceive a difference between the natural buildup of debris and Wald's placing of frosting directly on the rod in one fell swoop, such differences are a proper subject for cross-examination, not exclusion. *Compare Wicker*, 371 F. Supp.2d at 711 (an altered methodology or even "a flaw in methodology does not automatically disqualify an expert opinion; the flaw must be of such substance as to create a lack of 'good grounds' for the expert's conclusions.") (citing *Paoli* III, 35 F.3d at 746). Wald's experiment then tested whether this condition would render the design of the product defective. Because his theory is able to "withstand an examination by deductive reasoning," and his testing provided empirical verification of his hypothesis, his methodology is sufficiently sound.

Plaintiff has met the foundational support required by *Daubert*. Given Wald's educational background and years of experience, he is well qualified to render his opinion. Furthermore, plaintiff has demonstrated that the methodology he employed was sufficiently reliable. Lastly, his conclusions speak directly to the critical issues in this case: whether there was a defect in the design of defendant's T19 toaster, and whether it caused the Bastianini fire. Therefore, the court will admit the expert testimony proffered by plaintiff and

defendant's motion for summary judgment must be denied.

## August 19, 2008

s/ David Stewart Cercone
David Stewart Cercone
United States District Judge

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